Table of contents

TABLE OF CONTENTS **1**
INTRO **2**
OPEN AND CLOSE INPUTS 2
CONNECTIONS **3**
EXPLANATION 3
CONNECTION EXAMPLES **4**
CHANGE SETTINGS **5**
STEERING TIME 5
DIPSWITCH 1: MAXIMUM OUTPUT VOLTAGE 5
DIPSWITCH 2: STARTUP CURRENT AND VOLTAGE OUTPUT 5
DIPSWITCH 3: FAST TO MINIMUM OUTPUT LEVELS 5
DIPSWITCH 4: MINIMUM AND MAXIMUM CALIBRATE LEVELS 5
WITH THE PROG SWITCH: CALIBRATE OUTPUTS LEVELS 6
SETTING BY RS232 MENU **7**
TECHNICAL SPECIFICATIONS **8**

Intro

The Curentprint is a universal controlprint with two digital inputs and two analog outputs:

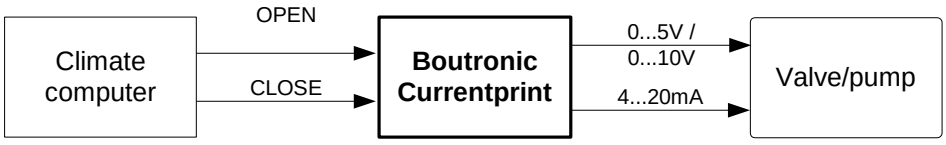
- Current output (4…20mA)
- Voltage output (0…5V of 0…10V max 100mA).

Open and close inputs

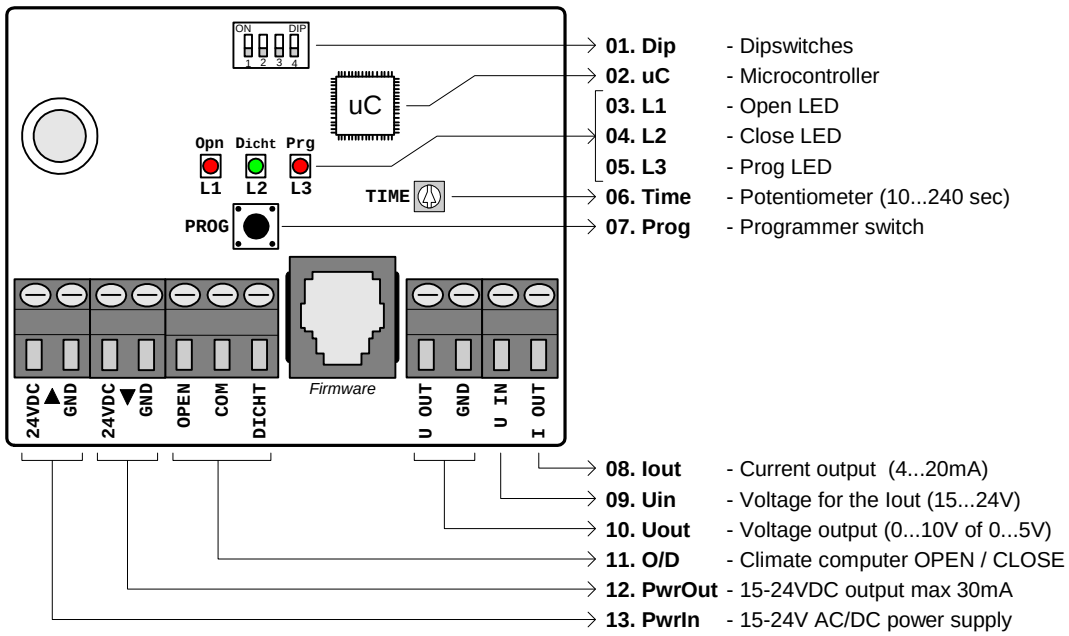
The Curentprint has a open and a close input. If the open input is activated, the level of the analog outputs will increase. With the digital close output you can decrease the output levels. You can set the steering time from minimum to maximum output level with the potentiometer (from 0% t/m 100%). You can activate the input continuous or with a interval.

The Curentprint can be used to convert the OPEN and CLOSE control from a climate computer to a 4…20mA signal. For a feedback signal the currentprint can send a voltage back to the climate computer (0…5V of 0…10V max 100mA).

example:



Connections



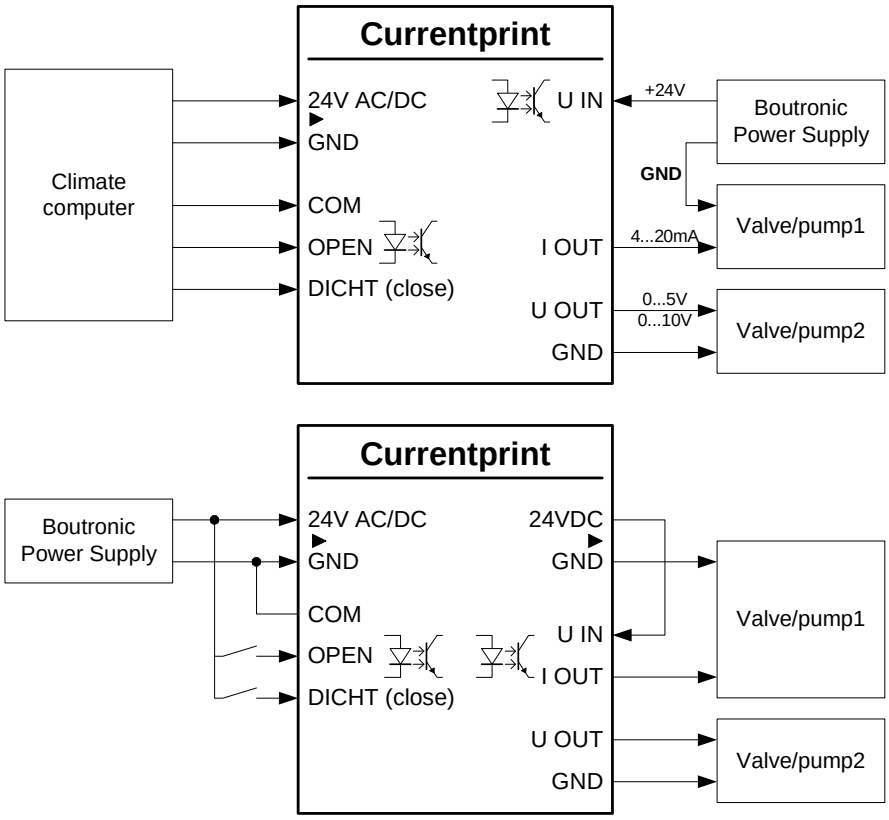
Explanation

01. Dip : With dipswitch 1 u select the maximum voltage output (Uout).
    DIP1 ON=10V OFF= 5V
    DIP2 ON=memory on OFF= memory off
02. uC : Microcontroller.
03. Led1 : When the open LED is on the analog outputs are increasing.

    when the currentprint is in programming position, this LED reports the menu level:
    - On : Switch is being pressed / setting are being stored.
    - 1x blink : Calibrate current output, 4mA.
    - 2x blink : Calibrate current output, 20mA.
    - 3x blink : Calibrate voltage output min.
    - 4x blink : Calibrate voltage output max.
04. Led2 : When the close LED is on, the analog outputs are decreasing.
05. Led3 : The prog LED turns on for a short moment when u press the PROG switch.
06. Time : With this potentiometer u can set the total steering time for the outputs going from minimum to maximum output level (10...240 sec).
07. Prog : Programming switch.
08. Uin : Input voltage for the current output (Iout) 15…24VDC.
09. Iout : Current output (4...20mA).
10. Uout : Voltage output (0...10V max 100mA).
11. O/D : Inputs for the climate computer.
12. PwrOut : 15-24VDC power supply out (maximaal 30mA).
13. PwrIn : 15-24V AC/DC power supply in.

connection examples

In this chapter u will see two examples:



Change settings

This chapter describes how u can change the settings.

Steering time

U can set the total steering of the outputs (0…100%) with the potentiometer. When u turn the potentiometer CCW u set the minimum time (10 sec), When u turn the potentiometer CW u set the maximum time (240 sec).

Dipswitch 1: Maximum output voltage

With DIP-switch number 1 u can set the maximum output voltage:

- Set to 0, the maximum output voltage is 5V.
- Set to 1, the maximum output voltage is 10V.

Dipswitch 2: startup current and voltage output

When the currentprint starts up the output value is set standard to 4mA and 0V. U can change the standard startup value.

This is how U can change the startup value:

- Set dipswitch 2 ON. (activate memory)
- As soon as the outputs have the desired output levels u must activate the OPEN and CLOS inputs simultaneous (the Open and Close LED both turn on)*.
- As soon as the LED's Open and Close turn off and on the value is being stored.
- When you start up the current print (with DIP 2 on) the output levels are as stored.

Dipswitch 3: fast to minimum output levels

If Dip 3 switch is on, U can set the output levels within 1 sec from maximum to minimum level.

This is how U can activate this function:

- Set dipswitch 3 to ON and leave it in this position. (activate)
- When u want the output levels to be at minimum u must activate the OPEN and CLOS inputs simultaneous (the Open and Close LED both turn on)
- As soon as the LED's Open and Close turn off and on the value is being stored.

Dipswitch 4: Minimum and maximum calibrate levels

When u set Dipswitch 4 to ON u can (by the menu of the RS232 port whit a special cable) set the maximum output level for calibrating

- Current : Normally u can set the calibrate level min (4mA) between 2mA and 6mA and the calibrate level max (20mA) between 18mA en 21mA. When u activate dipswitch 4 u can change both calibrate levels between 1mA en 21mA.
- Voltage; Normally u can set the calibrate level min (0V) between 0V and 1V and the calibrate level max (5/10V) between 4-6 or 9-11V. When u activate dipswitch 4 u can change both calibrate levels between 0 and 5/10V

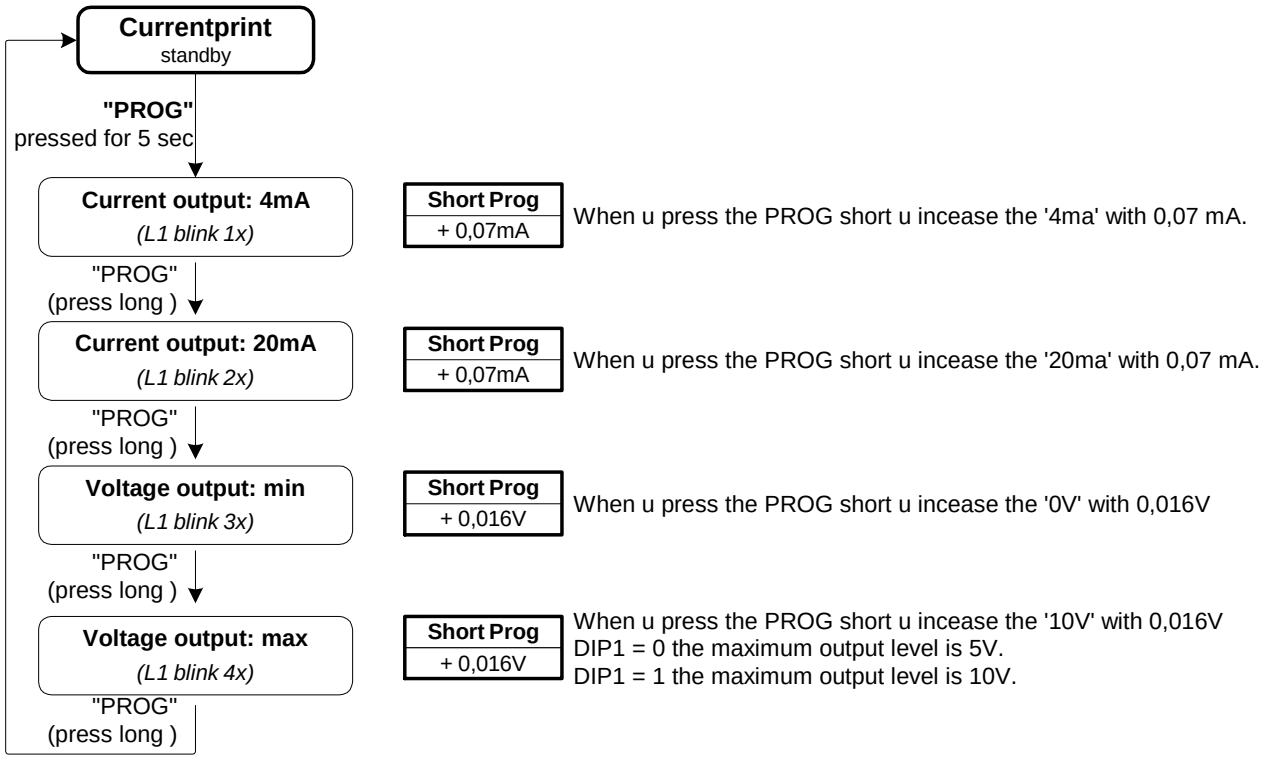
With the PROG switch: calibrate outputs levels

Press the PROG switch en keep this for 5 seconds until all led's turn on. Then release the switch and L1 blink. The output levels are set to the stored value.

- By pressing shortly the PROG switch u increase the value.
  by pressing the PROG switch long (until all led's turn on) you store the new level value.

If u don't press the PROG switch for more than 1 minute the, u will leave the menu automatically .

Menu structure



Setting by RS232 menu

U can change the setting with the RS232 port.

1. connect the Currentprint to your PC by a Boutronic RS232 dongle.
2. Start up a terminal program (such as hyperterm) and connect:
   (9600baud, 8N1)
3. Press shortly '+++'

   The following text is given on the screen:
   ```
   *** CONFIGMENU ***
   - iCFG_4mA
   ```

   With the '+' switch u increase the output level.
   With the '-' switch u decrease the output level.
   With the 'enter' switch u confirm the set value and it will be stored.
   With the 'esc' switch u will leave the menu.

   With the 'F' switch u will set all setting to factory levels..
4. When you press the 'enter' switch u confirm the set value and it will be stored:
   ```
   _SAVE:4mA
   ```
5. U can change the next setting…….
6. After the last setting u will leave the menu.
7. If u don't press anything for more than 1 minute then u will leave the menu automatically
8. ```
   - RUN
   ```
   ```

Technical specifications

Power input	: 15…24V AC/DC 35mA
Power output	: 15….24VDC maximum 30mA
Dimensions	: 95x75x35mm (LxBxH)
Steering time (with potentiometer)	: 10…240 seconds
Inputs open and close	: Optically isolated. - Input voltage 5…24V AC/DC 8mA
Current output	: Optically isolated. 4 tot 20mA - 0,07mA each step - Resistor: 100…500ohm
Voltage output	: DIP1 OFF: 0,2V…6,0V max 100mA * DIP1 ON: 0,2V…10,5V max 100mA - 0,016V each step

** Watch out:*
When u set the voltage output to 5V, the output can be during startup or failure be 10V for a brief moment).